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EXAMINER	
DONADO, FRANK E	

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2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,313	SCHWEIGER ET AL.	
	Examiner	Art Unit	
	FRANK DONADO	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20,22-26,28,30,33,34 and 37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20, 22-26, 28, 30, 33-34 and 37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 2/24/11 has been entered. Claims 1, 7, 11, 15, 22, 24, 33 and 37 have been amended. Claims 21, 27, 29, 31-32 and 35-36 have been cancelled. No claims have been added. Claims 1-20, 22-26, 28, 30, 33-34 and 37 are currently pending in this application, with claims 1, 33 and 37 being independent.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-17, 19-20, 22-25, 28, 30, 33, 34, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallant, et al **(US Patent No. 5,802,468)**, in view of Odorfer, et al **(US Patent No. 7,587,205)**.

Regarding claim 1, Gallant teaches a communications system for mobile radio telephony, the system comprising: a plurality of mobile devices operable within a total territory of the communication system **(Calling areas are defined within a mobile communication system, where said communication system include a plurality of mobile stations operable within said communication system, Column 1, lines 7-10 and 67)**, the total territory being divided into a plurality of location areas **(Said communication system is divided into a plurality of cells that define the current location of said mobile stations, Column 2, lines 32-39)**, each mobile device comprising a module insertable into, removable from and distinct from the mobile device **(A Subscriber Identification Module (SIM) is inserted into said mobile station, Column 7, lines 32-37)**, each mobile device being associated with at least one subscriber territory being fixed inside the total territory **(An identification code in said SIM defines the home geographic location for said mobile station used to define a home calling area, Column 7, lines 32-46)**, wherein the at least one subscriber territory includes at least a portion of at least one location area from among the plurality

of location areas **(Said home calling area overlaps said cells, Column 7, lines 54-55 and Column 10, lines 19-31)**, wherein said at least one subscriber territory is fixed by data including a location and the radius of a circle surrounding the location as a center **(Said home geographic location includes coordinate and radius information, Column 7, lines 32-49 and Column 10, lines 16-18)**. Gallant does not teach each module is configured to determine whether a respective mobile device is located inside the at least one subscriber territory by checking whether the received coordinates of the at least one location area in which the mobile device is located falls into the at least one subscriber territory associated with the mobile device, wherein said checking step comprises: comparing received coordinates of the at least one location area in which the mobile device is located, which includes a location point defined by coordinates $X_{h\text{-}area}$, $Y_{h\text{-}area}$, with stored coordinates of the at least one subscriber territory including a subscriber location point defined by coordinates $X_{h\text{-}territory}$, $Y_{h\text{-}territory}$ and a radius $R_{h\text{-}territory}$ that fixes a circle around the subscriber location point, and wherein said stored coordinates are stored in a memory on the SIM module. Odorfer teaches each module is configured to determine whether a respective mobile device is located inside the at least one subscriber territory by checking whether the received coordinates of the at least one location area in which the mobile device is located falls into the at least one subscriber territory associated with the mobile device **(A mobile device includes a SIM that receives coordinates from a current cell (x_c, y_c) in which said device is located, where said SIM checks independently whether a difference between said coordinates is larger than a predefined value, Column 6, lines 50-67 and Column**

7, line 1), wherein said checking step comprises: comparing received coordinates of the at least one location area in which the mobile device is located, which includes a location point defined by coordinates $X_{h\text{-}area}$, $Y_{h\text{-}area}$, with stored coordinates of the at least one subscriber territory including a subscriber location point defined by coordinates $X_{h\text{-}territory}$, $Y_{h\text{-}territory}$ and a radius $R_{h\text{-}territory}$ that fixes a circle around the subscriber location point, and wherein said stored coordinates are stored in a memory on the SIM module **(After said comparison of coordinates, said SIM computes a radius from said differences between coordinates using the squares of said difference values, Pythagoras' theorem distance calculation, and compares said square value with the square of the location radius stored in said SIM that corresponds to a predefined subscriber area defined by X_H, Y_H and r, hereafter R_H, Column 6, lines 50-67 and Column 7, lines 1-15)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant to include this feature for the benefit of transmission efficiency.

Regarding claim 2, Gallant, in view of Odorfer, teaches a communications system in accordance with claim 1. Gallant further teaches the module is the subscriber identification module **(SIM 34 of Figure 2)**.

Regarding claim 3, Gallant, in view of Odorfer, teaches a communications system in accordance with claim 1. Gallant further teaches location areas in which one or more radio cells are located are arranged in the total territory covered by the

communications system **(Said home calling areas that overlap with cells lie within said communication system, Column 7, lines 42-46)**.

Regarding claim 4, Gallant, in view of Odorfer, teaches a communications system in accordance with claim 3. Gallant further teaches location areas and/or the radio cells have identity data characterizing them **(Said home calling areas are associated with assigned BTS identifiers, Column 10, lines 11-19).**

Regarding claim 5, Gallant, in view of Odorfer teaches a communications system in accordance with claim 4. Gallant further teaches the identity data include identifiers and coordinates **(Said home calling areas are associated with assigned BTS identifiers and their corresponding coordinates, Column 10, lines 11-19)**.

Regarding claim 6, Gallant, in view of Odorfer teaches a communications system in accordance with claim 4. Gallant further teaches the system comprising means for transmitting the identity data of the location areas and/or of the radio cells to the mobile devices **(Said mobile station receives and decodes coordinate identifier fields transmitted by a Base Transceiver Station (BTS) that control said cells, Column 10, lines 19-21 and Column 7, lines 54-55)**.

Regarding claim 7, Gallant, in view of Odorfer teaches a communications system in accordance with claim 4. Odorfer further teaches an interface is provided in the

mobile devices by means of which the identity data can be transmitted to the module **(Said SIM card receives said cell coordinates x_c and y_c, Column 6, lines 50-67 and Column 7, line 1)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant, in view of Odorfer, to include this feature for the benefit of transmission efficiency.

Regarding claims 8 and 10, Gallant, in view of Odorfer teaches a communications system in accordance with claim 1. Odorfer further teaches means are provided in the module by means of which the identity data of the location area or radio cell in which the mobile device is located can be compared with data characterizing the subscriber territory; and the data characterizing the subscriber territory are stored in the module **(Said cellular coordinates x_c and y_c are compared to subscriber territory coordinates X_H, Y_H to determine whether the difference is greater than a predefined value, where, after said comparison of coordinates, said SIM computes a radius from said differences between coordinates using the squares of said difference values (Pythagoras' theorem) and compares said square value with the square of the location radius stored in said SIM that corresponds to said predefined subscriber area defined by X_H, Y_H and R_H, Column 6, lines 50-67 and Column 7, lines 1-15)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant, in view of Odorfer, to include this feature for the benefit of transmission efficiency.

Regarding claim 9, Gallant, in view of Odorfer, teaches a communications system in accordance with claim 8. Gallant further teaches the data characterizing the subscriber territory include identifiers and coordinates of the locations areas and/or radio cells located in the subscriber territory **(Said assigned BTS identifiers define coordinates of the home calling area, Column 10, lines 19-31)**.

Regarding claims 11 and 12, Gallant, in view of Odorfer, teaches a communications system in accordance with claim 9. Odorfer further teaches the module is effective to determine whether the coordinates of a location area or of a radio cell of the communications system are disposed in a region which is fixed by a location and the radius of a circle surrounding the location as a center; and the coordinates of the location and the radius are stored in the module **(Said cellular coordinates x_c and y_c are compared to subscriber territory coordinates X_H, Y_H to determine whether the difference is greater than a predefined value, where, after said comparison of coordinates, said SIM computes a radius from said differences between coordinates using the squares of said difference values (Pythagoras' theorem) and compares said square value with the square of the location radius stored in said SIM that corresponds to a predefined subscriber area defined by X_H, Y_H and R_H, Column 6, lines 50-67 and Column 7, lines 1-15)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant, in view of Odorfer, to include this feature for the benefit of transmission efficiency.

Regarding claim 13, Gallant, in view of Odorfer, teaches a communications system in accordance with claim 11. Gallant further teaches the identifiers of the location areas and/or of the radio cells identify the corresponding coordinates of the location area and/or of the radio cell to which they apply to facilitate a determination of the coordinates from the identifiers **(Both said cell identifiers and said identification codes that define home calling areas have corresponding coordinates, Column 10, lines 12-17 and Column 3, lines 23-26)**.

Regarding claim 14, Gallant, in view of Odorfer, and further in view of Odorfer, teaches a communication system in accordance with claim 13. Gallant further teaches the identifiers of the location areas and/or of the radio cells are designated such that they are in a relationship with the coordinates of the location area and/or of the radio cell so that the coordinates can be determined from the identifiers **(Both said cell identifiers and said identification codes that define home calling areas have corresponding coordinates, Column 10, lines 12-17 and Column 3, lines 23-26)**.

Regarding claim 15, Gallant, in view of Odorfer, teaches a communications system in accordance with claim 9. Odorfer further teaches means are provided in the module by which the coordinates can be determined on the basis of the identifiers **(Said SIM identifies cellular coordinates from said x_c and y_c, Column 6, lines 56-**

61). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant, in view of Odorfer, to include this feature for the benefit of transmission efficiency.

Regarding claims 16 and 17, Gallant, in view of Odorfer, teaches a communications system in accordance with claim 15. Odorfer further teaches the module has means by which it can be determined whether the identifier of a location area and/or of a radio cell coincides with a predetermined identifier of the location area and/or of the radio cell of the subscriber territory, and the predetermined identifier is stored in the module **(Said cellular coordinates x_c and y_c are compared to said predetermined coordinates X_H, Y_H stored in said SIM to determine whether the difference is greater than a predefined value, Column 6, lines 50-67 and Column 7, line 1)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant, in view of Odorfer, to include this feature for the benefit of transmission efficiency.

Regarding claim 19, Gallant, in view of Odorfer teaches a communications system in accordance with claim 1. Odorfer further teaches the system further comprises an interface between the mobile device and the module to facilitate the transmission of a control signal indicating whether the mobile device is located in a subscriber territory **(Said SIM interfaces with said mobile device to receive said**

location determining information, Column 6, lines 50-67 and Column 7, lines 1-15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant, in view of Odorfer, to include this feature for the benefit of billing accuracy and transmission efficiency.

Regarding claim 20, Gallant, in view of Odorfer, teaches a communication system in accordance with claim 1. Gallant further teaches the system configured to perform a method of operating a communications system for mobile radio telephony **(Calling areas are defined within a mobile communication system, where said communication system include a plurality of mobile stations operable within said communication system, Column 1, lines 7-10 and 67)**, the communication system being divided into a plurality of location areas **(Said communication system is divided into a plurality of local calling areas that are larger than home calling areas, Column 7, lines 22-24)**, each location area including at least one radio cell **(Said communication system is divided into a plurality of cells that overlap with said home calling areas that are contained within said local calling areas, indicating local calling areas contain cells, Column 7, lines 54-55 and 60-63)**, the method comprising: assigning at least one subscriber territory to a mobile device, the subscriber territory being defined according to three parameters, a subscriber X-coordinate position, a subscriber Y-coordinate position and a subscriber radius R, the three parameters collectively defining a circular subscriber territory within a total territory of the communication system **(Said home geographic location that is used**

to define said home calling area and is defined by said identification code in said SIM includes coordinate and radius information, Column 7, lines 32-49 and Column 10, lines 16-18); receiving an X-coordinate position and a Y-coordinate position of one of said location areas or radio cells within the communication system at the mobile device **(Said mobile station receives and decodes coordinate identifier fields transmitted by a Base Transceiver Station (BTS) that control said cells, Column 10, lines 19-21 and Column 7, lines 54-55)**; determining whether the received X-coordinate position and the received Y-coordinate position of one of said location areas or radio cells is disposed within the subscriber territory as defined by said subscriber X-coordinate position, said subscriber Y-coordinate position and subscriber radius R **(Said home calling area overlaps said cells, and said mobile station uses SIM information to determine its location with respect to its home calling area, Column 7, lines 54-55 and Column 10, lines 19-31)**; and informing a subscriber of the mobile device that the subscriber is within the subscriber territory in the case where said determining step is true **(Result from said determination is sent accordingly, Column 10, lines 31-33)**.

Regarding claim 22, Gallant, in view of Odorfer, teaches a communication system in accordance with claim 20. Odorfer further teaches the examination whether the coordinates of a location area and/or of a radio cell are disposed in a region which is fixed by a location and the radius of a circle surrounding the location as a center is performed by the module **(Said method is performed by said SIM, Column 6, lines**

50-67 and Column 7, lines 1-15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant, in view of Odorfer, to include this feature for the benefit of transmission efficiency.

Regarding claim 23, Gallant, in view of Odorfer teaches a communication system in accordance with claim 1. Odorfer further teaches an examination whether the identifier of a location area or of a radio cell coincides with a predetermined identifier of a location area or of a radio cell is performed by the module **(Said cellular coordinates x_c and y_c are compared by said SIM to said predetermined coordinates X_H, Y_H stored in said SIM to determine whether the difference is greater than a predefined value, Column 6, lines 50-67 and Column 7, line 1)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant, in view of Odorfer, to include this feature for the benefit of billing accuracy and transmission efficiency.

Regarding claim 24, Gallant, in view of Odorfer, and further in view of Odorfer, teaches a communication system in accordance with claim 22. Odorfer further teaches said examination whether the identifier of a location area or radio cell coincides with a predetermined identifier takes place prior to the examination whether the coordinates of a location area and/or of a radio cell are disposed in the region which is fixed by the location and the radius of a circle surrounding the location as a center is performed by the module **(Said determination of location performed by said SIM includes**

comparing current location areas with predetermined sub-areas before making said cell coordinate and radius comparison (distance calculation), Column 3, lines 29-32 and Column 9, lines 21-24 and 30-57). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant, in view of Odorfer, and further in view of Odorfer, to include this feature for the benefit of transmission efficiency.

Regarding claim 25, Gallant, in view of Odorfer, teaches a communication system in accordance with claim 20. Odorfer further teaches the location and the radius of the region and/or the predetermined identifiers are stored in the module **(Said SIM card stores said cell coordinates X_H and Y_H and said radius R_H, Column 6, lines 50-67 and Column 7, line 1-15)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant, in view of Odorfer, to include this feature for the benefit of transmission efficiency.

Regarding claim 28, Gallant, in view of Odorfer, teaches a communication system in accordance with claim 20. Odorfer further teaches the identifier of the location area and/or of the radio cell and/or their coordinates are forwarded by a transmitter and receiver station to the module within the mobile device **(Said x_c and y_c are forwarded by a corresponding cell to said SIM, Column 6, lines 56-61)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to

modify the invention of Gallant, in view of Odorfer, to include this feature for the benefit of transmission efficiency.

Regarding claim 30, Gallant, in view of Odorfer, teaches the communication system according to claim 20. Odorfer further teaches the assigning step further comprises storing the three parameters within a memory of the mobile device **(Said SIM card stores said cell coordinates X_H and Y_H and said radius R_H, Column 6, lines 50-67 and Column 7, line 1-15)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant, in view of Odorfer, to include this feature for the benefit of transmission efficiency.

Regarding claim 33, Gallant teaches a method of operating a communications system for mobile radio telephony, the communication system being divided into a plurality of location areas, each location area including at least one radio cell, the method comprising: assigning at least one first identifier to a mobile device defining at least one subscriber territory of the mobile device, wherein the first identifier is characterized by a location area of the communication system or coordinates of a radio cell of the communication system defining a center and by a radius of a circle circumscribing the center location, wherein the center location is defined by coordinates $X_{h\text{-territory}}$, $Y_{h\text{-territory}}$ of a location point and the circle circumscribing the center location is defined by a radius $R_{h\text{-territory}}$ that fixes a circle around the location point **(Calling areas**

are defined within a mobile communication system, where said communication system include a plurality of mobile stations operable within said communication system, and a home geographic location includes coordinate and radius information, Column 1, lines 7-10 and 67, Column 7, lines 32-49 and Column 10, lines 16-18), receiving, at the mobile device, a second identifier of one of a location area or a radio cell within the communication system defined by received coordinates of the location area or radio cell in which the mobile device is located, defined by coordinates $X_{h\text{-}area}$, $Y_{h\text{-}area}$ **(Said mobile station receives and decodes coordinate identifier fields transmitted by a Base Transceiver Station (BTS) that control said cells, Column 10, lines 19-21 and Column 7, lines 54-55)**; determining, using a module insertable into, removable from, and distinct from the mobile device, whether the first identifier matches the second identifier by checking whether the received coordinates of the at least one location area in which the mobile device is located falls into the at least one subscriber territory associated with the mobile device **(A mobile device includes a SIM that receives coordinates from a current cell (x_c, y_c) in which said device is located, where said SIM checks independently whether a difference between said coordinates is larger than a predefined value, Column 6, lines 50-67 and Column 7, line 1)**, wherein said checking step comprises: comparing received coordinates of the at least one location area in which the mobile device is located, which includes a location point defined by coordinates $X_{h\text{-}area}$, $Y_{h\text{-}area}$, with stored coordinates of the at least one subscriber territory including a subscriber location point defined by coordinates $X_{h\text{-}territory}$, $Y_{h\text{-}territory}$ and a radius $R_{h\text{-}territory}$ that fixes a circle around

the subscriber location point, and informing a subscriber of the mobile device that the subscriber is within the subscriber territory when the first identifier matches the second identifier **(After said comparison of coordinates, said SIM computes a radius from said differences between coordinates using the squares of said difference values, Pythagoras' theorem distance calculation, and compares said square value with the square of the location radius stored in said SIM that corresponds to a predefined subscriber area defined by X_H, Y_H and r, hereafter R_H, Column 6, lines 50-67 and Column 7, lines 1-15)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant to include this feature for the benefit of transmission efficiency.

Regarding claim 34, Gallant, in view of Odorfer teaches the method according to claim 33. Gallant further teaches the assigning step further comprises storing the predetermined identifier within the module of the mobile device **(Said predetermined identifiers of home calling areas are stored in said SIM, Column 7, lines 32-37 and 42-46)**.

Regarding claim 37, Gallant teaches a communications system for mobile radio telephony, the system comprising: a plurality of mobile devices operable within a total territory of the communication system **(Calling areas are defined within a mobile communication system, where said communication system include a plurality of mobile stations operable within said communication system, Column 1, lines 7-10**

and 67), the total territory being divided into a plurality of location areas **(Said communication system is divided into a plurality of cells that define the current location of said mobile stations, Column 2, lines 32-39)**, each mobile device comprising a module insertable into, removable from and distinct from the mobile device **(A Subscriber Identification Module (SIM) is inserted into said mobile station, Column 7, lines 32-37)**, each mobile device being associated with at least one subscriber territory being fixed inside the total territory **(An identification code in said SIM defines the home geographic location for said mobile station used to define a home calling area, Column 7, lines 32-46)**, wherein the at least one subscriber territory includes at least a portion of at least one location area from among the plurality of location areas **(Said home calling area overlaps said cells, Column 7, lines 54-55 and Column 10, lines 19-31)**, wherein said at least one subscriber territory is fixed by data including a location and the radius of a circle surrounding the location as a center **(Said home geographic location includes coordinate and radius information, Column 7, lines 32-49 and Column 10, lines 16-18)**. Gallant does not teach each module comprises a processor configured to poll a determination unit external from the mobile device and receive information from the determination unit regarding whether a respective mobile device is located inside the at least one subscriber territory by checking whether the received coordinates of the at least one location area in which the mobile device is located falls into the at least one subscriber territory associated with the mobile device, wherein said checking step comprises: comparing received coordinates of the at least one location area in which the mobile device is located, which

includes a location point defined by coordinates $X_{h\text{-}area}$, $Y_{h\text{-}area}$, with stored coordinates of the at least one subscriber territory including a subscriber location point defined by coordinates $X_{h\text{-}territory}$, $Y_{h\text{-}territory}$ and a radius $R_{h\text{-}territory}$ that fixes a circle around the subscriber location point, and wherein said stored coordinates are stored in a memory on the SIM module. Odorfer teaches each module comprises a processor configured to poll a determination unit external from the mobile device and receive information from the determination unit regarding whether a respective mobile device is located inside the at least one subscriber territory by checking whether the received coordinates of the at least one location area in which the mobile device is located falls into the at least one subscriber territory associated with the mobile device **(A mobile device includes a SIM that receives coordinates from a current cell (x_c, y_c) in which said device is located, where said SIM checks independently whether a difference between said coordinates is larger than a predefined value, Column 6, lines 50-67 and Column 7, line 1)**, wherein said checking step comprises: comparing received coordinates of the at least one location area in which the mobile device is located, which includes a location point defined by coordinates $X_{h\text{-}area}$, $Y_{h\text{-}area}$, with stored coordinates of the at least one subscriber territory including a subscriber location point defined by coordinates $X_{h\text{-}territory}$, $Y_{h\text{-}territory}$ and a radius $R_{h\text{-}territory}$ that fixes a circle around the subscriber location point, and wherein said stored coordinates are stored in a memory on the SIM module **(After said comparison of coordinates, said SIM computes a radius from said differences between coordinates using the squares of said difference values, Pythagoras' theorem distance calculation, and compares said**

square value with the square of the location radius stored in said SIM that corresponds to a predefined subscriber area defined by X_H, Y_H and r, hereafter R_H, Column 6, lines 50-67 and Column 7, lines 1-15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant to include this feature for the benefit of transmission efficiency.

6. Claim 18 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallant, in view of Odorfer, and further in view of Sambin **(US Patent No. 7,110,776)**.

Regarding claim 18, Gallant, in view of Odorfer, teaches a communications system in accordance with claim 1. Gallant, in view of Odorfer, does not teach the identifiers stored in the module are at least partly stored in a form reducing the storage requirements. Sambin teaches the identifiers stored in the module are at least partly stored in a form reducing the storage requirements **(A SIM stores and generates location data in a compressed format, Column 2, lines 24-44)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant, in view of Odorfer, to include this feature for the benefit of reducing costs.

Regarding claim 26, Gallant, in view of Odorfer, teaches a method in accordance with claim 25. Gallant, in view of Odorfer, does not teach the predetermined identifiers are at least partly stored in a manner reducing the memory requirements in the module. Sambin teaches the predetermined identifiers are at least partly stored in a manner reducing the memory requirements in the module **(A SIM stores and generates location data in a compressed format, Column 2, lines 24-44)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Gallant, in view of Odorfer, and further in view of Odorfer, to include this feature for the benefit of reducing costs.

Response to Arguments

8. Applicant's arguments, filed 2/24/11, with respect to the objection of claims 7, 11, 15, 22 and 24 have been fully considered and are persuasive. The objection of these claims has been withdrawn.

9. Applicant's arguments with respect to claims 1-20, 22-26, 28, 30, 33-34 and 37 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANK DONADO whose telephone number is (571) 270-5361. The examiner can normally be reached Monday-Friday, 9:30 am-6 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on 571-272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-270-6361.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-273-8300.

/Frank Donado/
Art Unit 2617

/Rafael Pérez-Gutiérrez/
Supervisory Patent Examiner, Art Unit 2617